



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,515	11/19/2003	Michael E. Caporali	02890061AA	4691

7590 08/24/2005

McGuire Woods LLP  
Tysons Corner  
Suite 1800  
1750 Tysons Boulevard  
McLean, VA 22102-4215

EXAMINER
----------

WEEKS, GLORIA R

ART UNIT	PAPER NUMBER
----------	--------------

3721

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Tuta

**Office Action Summary**

Application No.

10/715,515

Applicant(s)

CAPORALI ET AL.

Examiner

Gloria R. Weeks

Art Unit

3721

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-39 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Response to Amendment***

1. This action is in response to Applicants' amendment received on May 12, 2005.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "the transport system" in line 4. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7, 11, 12 and 32-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Malow (USPN 5,280,694).

With respect to claims 1-4, 6, 7, 11 and 12, Malow discloses a device for stacking product, comprising: at least one pivoting mechanism (9) pivotable between a loading position and a initial/final position, the pivoting mechanism retains a container (8) thereon; at least one diverting mechanism including a swingable diverting arm (2) corresponding to the at least one

Art Unit: 3721

pivoting mechanism (9), the at least one diverting mechanism injecting product into a container (8); a feeding area (1; see figure below) including; an ejection station (3) injecting the product into the container (8); a transport system (1; see figure below); a lifting device (11); a container transport device (12, 13); and inherently discloses a controller.

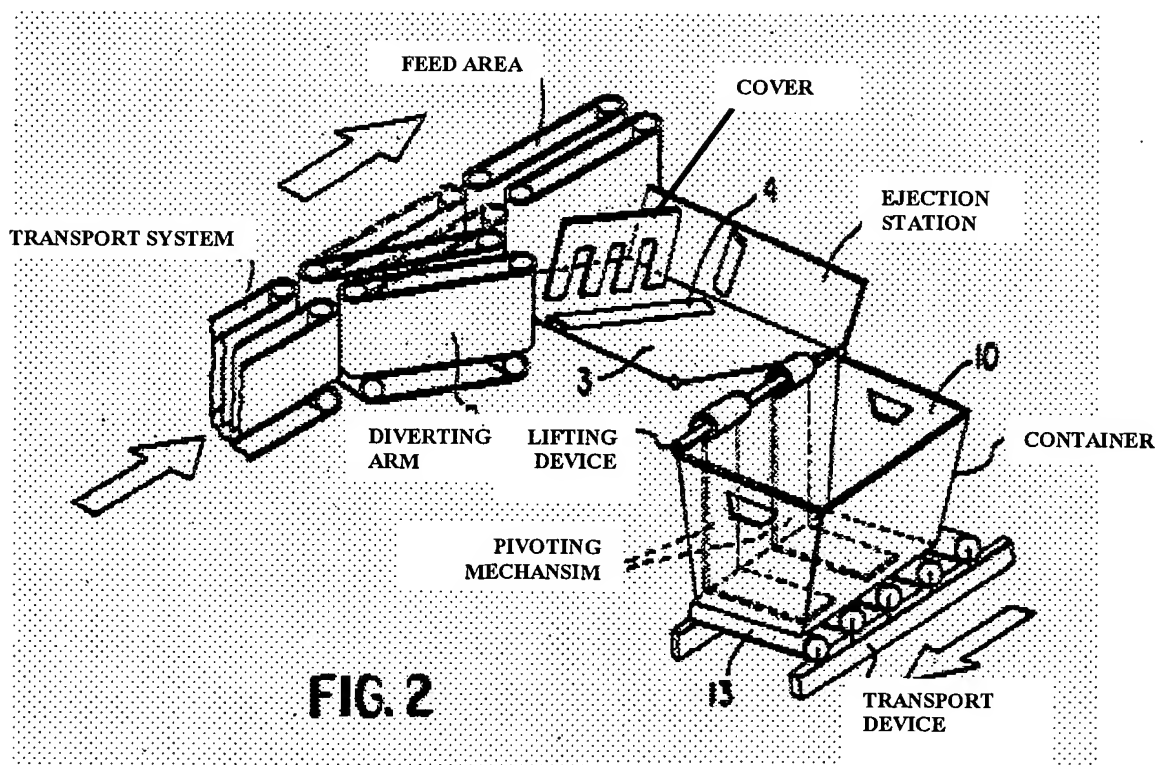
In reference to claim 5, Malow discloses a device for stacking product, comprising: at least one pivoting mechanism (9) and at least one diverting mechanism (2) corresponding to the at least one pivoting mechanism (9). Although Malow does not illustrate a second pivoting mechanism (9) and second diverting mechanism (2), Malow discloses on column 1 lines 47-49 that at least two diverting mechanisms and at least two diverting mechanisms separated by a second feeding area exist in the apparatus of Malow.

Regarding claims 32-35, Malow discloses a method for stacking product, comprising the steps of: transporting (12) a container (8) to an injection area; angling the container (8) to a predetermined angle greater than 0 degrees from a horizontal plane (figures 1-2); injecting product (18) into the container (8) in a vertically stacked orientation. (figures 4-5); indexing the container a predetermined distance via a conveyor (12); continuing injecting product into the container (8) in a vertical stacked orientation (figures 4-5); lowering the container (8) into the horizontal plane; and transporting the container (8) away in the horizontal plane away from the injection area (column 2 lines 28-30); controlling (column 2 lines 14-16) the flow of product (18) to an ejection area (3).

With respect to claims 36-39, Malow discloses a method for stacking product for feeding product (18) in a horizontal orientation in a travel path (1) and depositing the product (18) into a container (18), the method comprising the steps: vertical orientation into a container, the method comprising the steps of: transporting a container (3) to an injection area (page 3 paragraph 32);

Art Unit: 3721

angling the container (3) to a predetermined angle greater than 0 degrees from a horizontal plane and lowering the container into the horizontal plane (2; page 3 paragraphs 23); injecting product into the container (3) in a vertically stacked orientation (page 3 paragraph 28); indexing (10) the container a predetermined distance and transporting the container (3) away in the substantially horizontal plane away from the injection area (page 3 paragraph 31); controlling a flow of the product to an ejection area (6) which injects the product into the container (3); determining (16) the amount of product in a container (3); further comprising the step of determining which of several injection areas to transport the product thereto for injection into the container (3; page 2 paragraph 22).



***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 8, 26, 30 and 31 are rejected under 35 U.S.C. 103(a) as being obvious over Hendrickson et al. (USPN 6,328,302) in view of Prakken et al. (USPN 5,778,640).

In reference to claims 1 and 8, Hendrickson et al. discloses a stacking device comprising: at least one pivoted (52) mechanism retaining a container (40) thereon; at least one corresponding diverting mechanism including a swingable diverting arm (42-1) and a feeding area (42-2); an ejection station (46) proximate the feeding area, the ejection station injecting product into the container (40); and a indexing mechanism (48) which indexes the container (40) a predetermined distance during injection of product into the container (40). Hendrickson does not disclose a pivoting mechanism pivotable between a loading position and an initial/final position.

Prakken et al. teaches at least one pivoting mechanism (48') pivotable between a loading position and an initial/final position (figures 11-16d), the at least one pivoting mechanism (48') retaining a container (38) thereon; and an indexing mechanism (50, 52). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the pivoted mechanism and indexing mechanism of Hendrickson et al., as taught by Prakken et al, since Prakken et al. states at column 3 lines 63-66 that such a modification would allow the container to be both rotated/pivoted and indexed during the stacking process.

Art Unit: 3721

Regarding claims 26, 30 and 31, Hendrickson et al. discloses a stacking device comprising: a container positioner (52) to retain a container (40) in an inclined configuration; a control to operate the container positioner to increment the container a distance in the inclined configuration to permit product to drop in a substantially horizontal orientation into the container (40); at least one guide (46); and a container lifting and lowering device that incrementally positions the container either upwards or downwards. Hendrickson does not disclose a pivoting mechanism pivotable between a loading position and a initial/final position.

Prakken et al. teaches a container positioner (48') constructed to rotate between a horizontal configuration and an inclined configuration (figures 11-16d); and a lifting and lowering mechanism (50, 52) including a support. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the pivoted mechanism and indexing mechanism of Hendrickson et al., as taught by Prakken et al, since Prakken et al. states at column 3 lines 63-66 that such a modification would allow the container to be both rotated/pivoted and indexed during the stacking process.

7. Claims 9, 10 are rejected under 35 U.S.C. 103(a) as being obvious over Malow (USPN 5,280,694) in view of Vander Syde et al. (USPN 5,906,468).

With respect to claims 9 and 10, Malow discloses a stacking device comprising a container induction transport (12) that positions a container on a pivoting mechanism (9), but does not disclose the use of a sensor. Vander Syde et al. teaches a stacking device comprising a container induction transport (30) that positions a container (28) on a pivoting mechanism (18), further comprising a microswitch sensor or equivalent sensing elements (column 19 lines 21-28). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the stacking device of Malow to include a photodiode sensor, as taught by Vander Syde

Art Unit: 3721

et al., since Vander Syde et al. states at column 19 lines 21-28 that such a modification provides detection of the position of the container.

8. Claims 13 is rejected under 35 U.S.C. 103(a) as being obvious over Malow (USPN 5,280,694) in view of Huang et al. (USPN 6,438,928).

In reference to claim 13, Malow discloses a stacking device comprising: a single induction/exit transport (12) positioned at a respective end of at least one pivoting mechanism (9), but does not disclose a right angle movement device. Huang et al. teaches a stacking device comprising: an induction transport (90) and an exit transport (94) positioned at a respective end of at least one pivoting mechanism (58); and a right angle movement device (96) to move a container (10) substantially at a right angle from the induction transport (90) to the at least one pivoting mechanism (58; figures 5A-5C). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the stacking device of Malow to include a separate induction and exit transport, as taught by Huang et al., for the purpose of returning the container to the initial position, thus providing a single load and unload location for the container.

9. Claims 14-18 and 21-25 are rejected under 35 U.S.C. 103(a) as being obvious over Malow (USPN 5,280,694) in view of Hain (USPN 4,997,176).

Regarding claim 14, Malow discloses a stacking device comprising: a swingable diverting arm including opposing belts configured in pinch belt configuration; and an ejection station including a support and a pusher. Malow does not disclose an ejection station including opposing belts. Hain teaches a stacking device comprising an ejection station (16) including opposing belts (18, 20) configured in a pinch belt configuration. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the ejection station of



Art Unit: 3721

Malow to include opposing belts, as taught by Hain, for the purpose of maintaining a grip on a product, thereby ensuring proper ejection of the product into an adjacent container.

With respect to claims 15-18 and 21-25, Malow discloses a device for stacking product, comprising: at least one pivoting mechanism (9) pivotable between a first and second position; at least one diverting mechanism including a swingable diverter arm (2) corresponding to the at least one pivoting mechanism (9), the at least one diverting mechanism injecting product into a container (8); a feeding area (1) including; an ejection station (3) positioned in a downward angle to inject the product into the container (8); a transport system (1); a lifting device (11); a container transport device (12, 13); a cover (15) positionable over the container (8); and inherently discloses a controller.

10. Claims 20 is rejected under 35 U.S.C. 103(a) as being obvious over Malow (USPN 5,280,694) in view of Hain (USPN 4,997,176) as applied to claim 15 above, and further in view of Vander Syde et al. (USPN 5,906,468).

With respect to claim 20, Malow discloses a stacking device comprising a container induction transport (12) that positions a container on a pivoting mechanism (9), but does not disclose the use of a sensor. Vander Syde et al. teaches a stacking device comprising a container induction transport (30) that positions a container (28) on a pivoting mechanism (18), further comprising a microswitch sensor or equivalent sensing elements (column 19 lines 21-28). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the stacking device of Malow to include a photodiode sensor, as taught by Vander Syde et al., since Vander Syde et al. states at column 19 lines 21-28 that such a modification provides detection of the position of the container.

Art Unit: 3721

11. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being obvious over Scata et al. (USPN 5,135,352) in view of Prakken et al. (USPN 5,778,640).

In reference to claims 26 and 27, Scata et al. discloses a stacking device comprising: a container positioner (8); a control (11, 12) operable to activate the container positioner (8) to increment a container (7) a distance during stacking of product (3) in the container (7); a conveyor<sup>1</sup> (2) onto which dropped product (3) are captured and arranged to drop the product (3) in the container in a substantially horizontal orientation. Scata et al. does not disclose a rotatable container positioner.

Prakken et al. teaches at least one container positioner (48') constructed to rotate between a horizontal configuration and an inclined configuration (figures 11-16d); and a control (50, 52) operable to both rotate and increment the container a distance during stacking of product. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the container positioner of Scata et al., as taught by Prakken et al, since Prakken et al. states at column 3 lines 63-66 that such a modification would allow the container to be both rotated and indexed during the stacking process.

12. Claim 28 is rejected under 35 U.S.C. 103(a) as being obvious over Scata et al. (USPN 5,135,352) in view of Prakken et al. (USPN 5,778,640) as applied to claim 27 above and further in view of Guenther et al (USPN 5,503,388).

Regarding claim 28, the stacking device of Scata et al. discloses a divider (1) attached to the conveyor (2), but does not disclose the divider capable of pushing product. Guenther et al. teaches a stacking device comprising a conveyor (54) with an attached divider (80), the diver

---

<sup>1</sup> Conveyor (n): a mechanical apparatus that transports materials, packages, or items being assembled from one place to another

Art Unit: 3721

constructed to push product retained on the conveyor (54). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the conveyor of Scata et al. to include a pusher, as taught by Guenther et al., since Guenther et al. states at column 5 lines 21-24 that such a modification ensures product accumulated on the conveyor are transported to a container in a substantially horizontal configuration.

13. Claim 29 is rejected under 35 U.S.C. 103(a) as being obvious over Scata et al. (USPN 5,135,352) in view of Prakken et al. (USPN 5,778,640) as applied to claim 27 above, and further in view of Vander Syde et al. (USPN 5,906,468).

With respect to claims 29, the modified stacking device of Scata et al. discloses a rotatable container positioner, but does not disclose a cover attached to the container positioner. Van Syde et al. teaches a container positioner (18) rotatable from a horizontal configuration to an inclined configuration (7A-7E), the container positioner comprising a cover (160) removable positioned over a top of a container (26) and rotatable with the container (26) between the horizontal and inclined configuration. It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the container positioner of Scata et al. to include the removable cover, as taught by Van Syde et al., sine Van Syde et al. states at column 9 lines 16-42 that such a modification retains the product within the container during rotation of the container on the container positioner.

***Allowable Subject Matter***

14. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 3721

The following is a statement of reasons for the indication of allowable subject matter:

The art of record considered as a whole, alone or in combination, neither anticipates nor renders obvious a stacking device comprising: at least one pivoting mechanism; at least one diverting mechanism, including a feeding area and a pinch belt configuration ejection station; and a indexing mechanism corresponding to the at least one pivoting mechanism to index a container a predetermined distance during injection of a product.

### ***Response to Arguments***

15. Applicant's arguments with respect to claims 1-38 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to attachment for notice of references cited and recommended for consideration based on their disclosure of limitations of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gloria R. Weeks whose telephone number is (571) 272-4473.

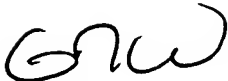
The examiner can normally be reached on 8:30 am - 7:00 pm Monday-Thursday.

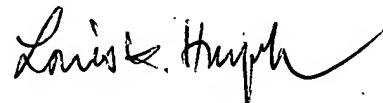
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I. Rada can be reached on (571) 272-4467. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3721

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gloria R Weeks  
Examiner  
Art Unit 3721

  
grw  
August 19, 2005

  
LOUIS K. HUYNH  
PRIMARY EXAMINER